### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection Bay Area Branch

690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

# WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-001637 Address: 333 Burma Road **Date Inspected:** 19-Feb-2008

City: Oakland, CA 94607

OSM Arrival Time: 800 **Project Name:** SAS Superstructure **OSM Departure Time:** 1730 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name:** See Below **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:** 

34-0006 **Bridge No: Component:** Tower and OBG Fabrication

### **Summary of Items Observed:**

Caltrans Quality Assurance (QA) Inspector, Mr. Paul Dawson, arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China, for the purpose of monitoring welding and fabrication of the San Francisco / Oakland Bay Bridge (SFOBB) components. The QA Inspector observed the following:

Orthotropic Box Girder (OBG) and Tower Mock Up:

CWI Inspector: Mr. Wu Ming Kai

Bay 1

The QA Inspector performed random visual inspections of deck plate DP057 closed rib welds #1, 2, 3, 4, and 5. The QA Inspector observed several locations on these welds that have various degrees of weld overlap at the bottom toe and underfill conditions. The results of these inspections were submitted to engineering for review. See the photogaraphs below for additional information.

Bay 3

The QA Inspector observed ZPMC welder Mr. Zhang Feng stencil 49769 is using shielded metal arc welding procedure WPS-B-P-2112-FCM to make fillet tack welds on OBG PL991, side plate stiffener welds SP522-001-038. The QA Inspector observed E7018 4.0 mm diameter electrodes, a welding current of

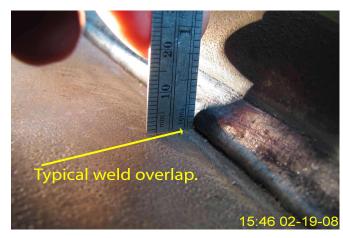
# WELDING INSPECTION REPORT

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approximately 180 amps and a minimum base material preheat temperature of 40° C. Items observed by the QA Inspector appear to comply with project specifications.

The QA Inspector observed ZPMC welder Mr. Dai Lu stencil 48659 is using shielded metal arc welding procedure WPS-B-P-2112-FCM to make fillet tack welds on OBG side plate stiffener weld SP749-001-005. The QA Inspector observed E7018 4.0 mm diameter electrodes, a welding current of approximately 185 amps and a minimum base material preheat temperature of 40° C. Items observed by the QA Inspector appear to comply with project specifications.





## **Summary of Conversations:**

See above for summary of conversations.

#### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By:	Dawson,Paul	Quality Assurance Inspector
Reviewed By:	Cochran,Jim	QA Reviewer